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09/107,524 06/30/98 CHAMBERS P PHA-23,406

EXAMINER

LM02/0620

CORPORATE PATENT COUNSEL
U S PHILIPS CORPORATION
580 WHITE PLAINS ROAD
TARRYTOWN NY 10591

PEETE JR, W
ART UNIT PAPER NUMBER

2774

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/107,524

Applicant(s)

Chambers

Examiner

Wendell A. Peete, Jr.

Group Art Unit

2774



☒ Responsive to communication(s) filed on Jun 30, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-18 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-18 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Fujimoto, U.S. Patent Number 5,912,710.

With regard to claim 1, Fujimoto discloses a system and method for retrieving an image from a DVD, the image having M x N pixels; expanding the image to X x Y pixels, where the product of X x Y is greater than the product of M x N; and displaying the expanded image at a resolution of X x Y pixels on a computer monitor. Id. at col. 5, lines 15-35, col. 8, lines 28-44.

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 3, 6 through 9, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto, U.S. Patent Number 5,912,710 Kesatoshi, U.S. Patent Number 5,874,937.

With regard to claims 2 and 9, Fujimoto does disclose a system wherein the images are stored on the DVD in a 720 x 480 format. Id., at col. 8, lines 15-59.

As to claim 8, Fujimoto discloses a system and method for retrieving an image from a DVD. Id. at col. 5, lines 15-35, col. 8, lines 28-44. Fujimoto does not expressly disclose a computer monitor having a resolution of X x Y pixels, wherein X x Y is greater than M x N; and an image processor coupled to the DVD drive and the computer monitor and including a DVD image expander that receives from the DVD drive the images retrieved from the DVD, expands the retrieved images from an M x N format to an X x Y format, and provides the expanded images as a display signal to the computer monitor.

However, Kesatoshi does disclose a monitor having a resolution of X x Y pixels, wherein X x Y is greater than M x N. Id., at col. 3, lines 52-9, fig. 2. Additionally, Kesatoshi discloses an

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image processor which includes an image expander that expands the retrieved images from an $M \times N$ format to an $X \times Y$ format, and provides the expanded images as a display signal to a monitor. Id., at col. 3, lines 10-59.

As per claim 10, Fujimoto does not expressly disclose a monitor having a resolution of 800×600 pixels nor does Fujimoto disclose an image expansion means where $X \times Y$ is equal to 800×480 .

However, Kesatoshi does disclose a monitor having a resolution of 800×600 pixels. Id., at col. 3, lines 57-60. Kesatoshi does not expressly disclose an image expansion means where $X \times Y$ is equal to 800×480 . However, Kesatoshi does disclose an image expansion where $X \times Y$ is equal to 800×600 . Id.

As to claim 12, Fujimoto discloses a system wherein an image signal input that receives an image signal containing images retrieved from a DVD. Id. at col. 5, lines 15-35, col. 8, lines 28-44. Fujimoto does not expressly disclose an image expansion circuitry coupled to the image signal input, the image expansion circuitry expanding the low-resolution images to generate high resolution images; and a display signal output coupled to the image expansion circuitry to receive the high-resolution images and output a high-resolution display signal formed from the high-resolution images.

However, Kesatoshi does disclose a system wherein an image signal input that receives an image signal containing low resolution images retrieved from a computer; image expansion circuitry coupled to the image signal input, the image expansion circuitry expanding the low-

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resolution images to generate high resolution images; and a display signal output coupled to the image expansion circuitry to receive the high-resolution images and output a high-resolution display signal formed from the high-resolution images. Id. at col. 3, lines 10-67, col. 4, lines 1-7.

With regard to claims 3, 6 and 7, Fujimoto does not expressly disclose a method of displaying an image wherein: $X \times Y$ is equal to 800×480 ; the step of expanding includes initially expanding the image to $P \times Q$ pixels, and discarding a number of pixels to read $X \times Y$ pixels; and $M \times N$ is equal to 720×480 , $P \times Q$ is equal to 852×480 and $X \times Y$ is equal to 800×480 .

However, Kesatoshi does disclose an apparatus and method for either the scaling up or down of a video image. The input video image of Kesatoshi is of an arbitrary resolution that is converted to another video image of having a predetermined resolution. The embodiment of the invention allows for the conversion of a low resolution image to that of a high resolution image. Id., at col. 3, lines 52-9, fig. 2.

The patents referenced do not mention specific $X \times Y$ or $M \times N$ image resolutions. Absent unexpected results it would be obvious to one of ordinary skill in the art to expand a predetermined $X \times Y$ image resolution to a predetermined $M \times N$ image resolution. Moreover, it would have been obvious to one of ordinary skill in the art to expand a $X \times Y$ image resolution to $P \times Q$ and then discard a number of pixels to obtain an image of $M \times N$ resolution.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to utilize the image expansion circuitry described by Kesatoshi in conjunction with the system and method for the retrieval of an image from a DVD of Fujimoto because to do so would allow for

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the conversion of any input image to the resolution required for use with the display device and thus display the converted image on the display device.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto, U.S. Patent Number 5,912,710 in view of Kesatoshi, U.S. Patent Number 5,874,937 further in view of Lee et al., U.S. Patent Number 5,666,163.

With regard to claim 5, Fujimoto does not expressly disclose a method wherein the step of expanding includes spectrally transforming the image.

However, Lee does disclose a method wherein the step of expanding includes spectrally transforming the image. Id. at col. 1, lines 59-67, col. 2, lines 1-12.

At the time of the invention it would have been obvious to combine the spectral transformation means of Lee with the DVD image retrieval system and method of Fujimoto. The use of a spectral analysis image enhancement technique would result in a converted image that would have the same spectral distribution as the original image thus lessening the degradation of the sharpness of the converted image.

5. Claims 4, 11 and 13 through 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto, U.S. Patent Number 5,912,710 Kesatoshi, U.S. Patent Number 5,874,937 further in view of Potu, U.S. Patent Number 5,719,594.

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With regard to claim 4, Fujimoto and Kesatoshi do not expressly disclose wherein the step of expanding includes interpolating the pixels in the image.

However, Potu does disclose a method wherein the step of expanding includes interpolating the pixels in the image. Id. at col. 8, lines 15-59.

As to claims 13 and 16, Fujimoto and Kesatoshi do not expressly disclose a system wherein each low resolution image comprises a set of pixels, and the image expansion circuitry includes a pixel generator for generating additional pixels and inserting the additional pixels within the set of pixels to generate a high-resolution image.

However, Potu does disclose a system wherein each low resolution image comprises a set of pixels, and the image expansion circuitry includes a pixel generator for generating additional pixels and inserting the additional pixels within the set of pixels to generate a high-resolution image. Id. at col. 4, lines 44-67, col. 5, lines 1-67, col. 6, lines 1-11.

As per claim 11, Fujimoto and Kesatoshi do not expressly disclose a system wherein the image processor includes interpolation circuitry that generates interpolated pixels in the images retrieved from the DVD to generate the expanded images.

However, Potu does disclose a system wherein the image processor includes interpolation circuitry that generates interpolated pixels in the images retrieved from the memory of a device. Id. at col. 4, lines 44-67, col. 5, lines 1-67, col. 6, lines 1-11.

As to claims 14, 15, 17 and 18, Fujimoto does not expressly disclose an image processing arrangement wherein: the sets of pixels in the low-resolution images are 720 x 480 pixel resolution

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sets; each high-resolution image generated by the image expansion circuitry with additional pixels comprises an 800 x 480 pixel resolution image; the sets of pixels in the low-resolution images are 720 x 480 pixel resolution sets; each high-resolution image generated by the image expansion circuitry with additional pixels comprises an 800 x 480 pixel resolution image.

However, Kesatoshi does disclose an apparatus and method for either the scaling up or down of a video image. The input video image of Kesatoshi is of an arbitrary resolution that is converted to another video image of having a predetermined resolution. The embodiment of the invention allows for the conversion of a low resolution image to that of a high resolution image. Id., at col. 3, lines 52-9, fig. 2.

Additionally, Potu does disclose a system wherein the image processor includes interpolation circuitry that generates interpolated pixels in the images retrieved from the memory of a device. Id. at col. 4, lines 44-67, col. 5, lines 1-67, col. 6, lines 1-11.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to utilize the image processor includes interpolation circuitry that generates interpolated pixels of Potu in conjunction with the image expansion circuitry described by Kesatoshi and the system and method for the retrieval of an image from a DVD of Fujimoto because to do so would allow for the conversion and resizing of any input image to the resolution required for use with the display device and thus display the converted image on the display device.

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Responses

Any response to this action should be mailed to :Commissioner of Patents and Trademarks Washington, D.C. 20231. If applicant desires to fax a response, (703) 308-6606 may be used for formal communications or (703) 305-9731 for informal or draft communications. Please label "PROPOSED" or "DRAFT" for informal facsimile communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).


Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wendell A. Peete, Jr. whose telephone number is (703)308-7299. Or e-mail: Wendell.Peete@USPTO.GOV. The examiner can normally be reached on Monday through Thursday from 8 a.m. to 4 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached at (703) 305-4709.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Wendell A. Peete, Jr.

June 15, 2000


RICHARD A. HJERPE
SUPERVISORY PATENT EXAMINER
GROUP 2700